PYROELECTRIC DUAL ELEMENT DETECTORS FOR MOTION SENSING

LHi 778, LHi 878, PYD 1388 – Low Cost Pyro

Applications

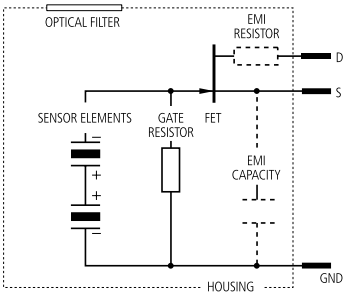
- Auto light switch
- Wall switch
- Auto lamps

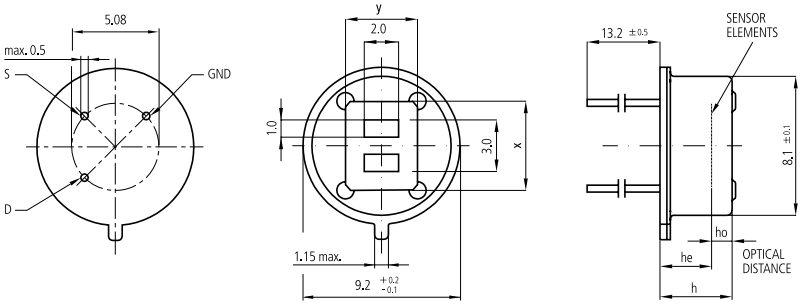
Features and Benefits

- TO-5 metal housing
- Different window sizes
- EMI protection for PYD1388

Product Description

This low cost Dual Element detector range offers standard TO-5 housings with different window sizes. The LHi 778 has a smaller window for minimal cost. The PYD1388 has an additional EMI protection option.





All dimensions in mm

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Parameter	Symbol	LHI 778	PYD 1388	LHI 878	Unit	Remark
Responsivity, min.	R_{min}	3.3	3.3	3.3	kV/W	f = 1 Hz
Responsivity, typ.	R_{typ}	4.2	4.2	4.2	kV/W	f = 1 Hz
Match, max.	M_{max}	10	10	10	%	
Noise, max.	N_{max}	50	50	50	μV_{pp}	0.4…10 Hz / 20° C
Noise, typ.	N_{typ}	20	20	20	μV_{pp}	0.4…10 Hz / 20° C
Spec. detectivity	D*	20	20	20	10^7 cm*$\sqrt{}$Hz/W	1 Hz / 1 Hz BW / 20° C
Field of view, horizontal	FoV	71°	95°	95°		Unobstructed
Field of view, vertical	FoV	71°	87°	87°		Unobstructed
Source voltage		0.2 - 1.55	0.2 - 1.55	0.2 - 1.55	V	47 kΩ / 20° C / 5 V
Operating voltage		2.0 ... 12	2.0 ... 12	2.0 ... 12	V	47 kΩ / 20° C
EMI performance		*	**	**		
WLI			**	*		Excelitas tester
Height	h	4.2	4.2	4.2	mm	
Optical element location	he / ho	3.2 / 0.75	3.2 / 0.75	3.2 / 0.75	mm	
Filter size	X / Y	4 / 3	4.6 / 3.4	4.6 / 3.4	mm	

* Improved, ** Excellent